Contribution ID: **118** Contribution code: **P23** Type: **Poster**

Survival of the planet-forming environment around three ejected runaway stars from the ONC

Monday, 19 August 2024 17:16 (2 minutes)

During the early dynamical evolution of a dense stellar system, such as a young star-forming region, stars can be ejected as runaway stars following a close dynamical interaction. These stars are still extremely young at the time of ejection and might harbour a protoplanetary disc, which has been truncated or limited in size by the ejection encounter. Based on three runaway stars from the Orion Nebula Cluster that show tentative evidence of surviving disc material, we investigate their disc properties and likely evolution. We compare the properties of these runaway stars with those from N-body simulations of the ONC to determine the closeness of the encounters that have formed them. We then truncate discs of different initial sizes/masses based on these encounters and simulate their subsequent evolution to evaluate their planet-forming potential.

Affliation

Imperial College London

Current Position

Postdoc

Primary author: SCHOETTLER, Christina (Imperial College London UK)

Presenter: SCHOETTLER, Christina (Imperial College London UK)

Session Classification: Flash Poster Presentations (in-person)